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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,815	11/20/2003	Terry A. Wheelwright	14307	9716
7590	02/28/2006		EXAMINER	
Sally J. Brown AUTOLIV ASP, INC. 3350 Airport Ogden, UT 84405			WEBB, TIFFANY LOUISE	
			ART UNIT	PAPER NUMBER
			3616	

DATE MAILED: 02/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/717,815	Applicant(s) WHEELWRIGHT ET AL.	
	Examiner Tiffany L. Webb	Art Unit 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13, 15-20, 25 and 26 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-24 is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☒ Claim(s) 14, 19, 21 and 27 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

1. Claims 6 and 13 are objected to for having minor informalities. In claim 6, line 2 "a squib" should be changed to "the squib" due to already having been properly anteceded in claim 1. Regarding claim 13, in line 2 "a squib" should be changed to "the squib" due to already having been properly anteceded in claim 11.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 4-5, and 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Shellabarger (US 5,632,506). Regarding claim 1, Shellabarger discloses having an airbag assembly (12) including: an inflatable cushion (60), a throat (62) in the cushion for receiving an inflator into the cushion, and an opening in the cushion for receiving an inflator squib (63), the opening having a corresponding size to the inflator squib (see Figure 8). Regarding claim 2, Shellabarger discloses a cushion being constructed of fabric (col. 3 lines 55-57). Regarding claim 4, Shellabarger discloses the throat is sealable to prevent the passage of inflation fluid through the throat (col. 5, lines 55-62). Regarding claim 5, Shellabarger discloses the throat is wrappable around the inflator housing to seal the throat closed (col. 5, lines 57-62). Regarding claims 9 and

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10, Shellabarger discloses using this type of air bag assembly as a knee air bag or as a side air bag (col. 1, lines 20-28).

4. Claims 1-2, 4, 6-8, 10-13, 15-17, 20 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Bunker et al. (US 5,667,241). Regarding claims 1-2, 7, 11, 15, and 17, Bunker et al. discloses having an airbag assembly (10) including: an inflatable fabric cushion (14); an inflator (12) having a housing (20) and a squib (96, col. 7 lines 10-12), the inflator partially contained within the cushion (see Figure 9); a throat (34) in the cushion through which the inflator can be inserted into the cushion (see Figures 4 and 5); and an opening (36) in the cushion for the inflator squib to project outside the cushion (see Figure 7 and 11), the opening having a diameter corresponding to the size of the squib (col. 4, lines 38-40). Regarding claims 4 and 12, Bunker et al. discloses the throat being sealable to prevent passage of inflation fluid through the throat (col. 8, lines 35-39). Regarding claims 6 and 13, Bunker et al. discloses an inflator (12) having a squib (96), wherein an electrical connection to the inflator is on the inflator squib (col. 7, lines 10-12). Regarding claims 7 and 15, the squib (96) projects out of the opening to outside the cushion and the inflator housing is contained in the cushion (see Figure 7). Regarding claims 8, 16, and 20, Bunker et al. discloses having the squib having a diameter smaller than a diameter of a portion of the inflator housing (see Figure 7). Regarding claim 10, Bunker et al. discloses the cushion as a side airbag (col. 1, line 8). Bunker et al. meets the limitations set forth by the apparatus claims and further meets the limitations of claims 25 to a method of maintaining a high internal pressure of a fabric bag. Bunker et al. discloses having an inflator and airbag assembly and

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inherently this airbag assembly can be produced using the method claimed by the applicant.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3, 18, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bunker et al. in view of Tanabe et al. (US 6,460,877). Bunker et al. is discussed above and fails to disclose having a laser cut opening in the cushion. Regarding claims 3 and 18, Tanabe et al. discloses using a laser to cut out portions of an airbag in order to have precision cuts (col. 13, lines 28-35). It would have been obvious to one of ordinary skill in the art at the time of the invention to create the opening for the inflator squib of Bunker et al. by laser cutting the cushion for precise tolerances in view of the teachings of Tanabe et al. Regarding claim 26, Bunker et al. meets the limitations set forth by the apparatus claims except the laser formed hole, Tanabe et al. meets the limitation of a laser cut hole; since the references meet the limitations set forth by the apparatus, Bunker et al. and Tanabe et al. further meet the limitations of claims 26 to a method of maintaining a high internal pressure of a fabric bag having a hole formed using a laser. It is inherent that the airbag assembly can be produced using the method claimed by the applicant.

Allowable Subject Matter

7. Claims 14, 19, 21 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 22-24 are allowed. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to disclose, teach, or suggest having an inflator having a housing, a squib, and mounting studs projecting orthogonally from the housing; an inflatable fabric cushion having a plurality of orifices corresponding in size to the mounting studs; a throat in the cushion through which the inflator can be inserted into; and a precision lasered hole in the cushion through which the squib projects to the outside of the cushion, the hole having a diameter equivalent to a diameter of the squib. While the prior art does disclose having mounting studs on the inflator for sealing and a cushion with a hole in it for a squib, there is no teaching to combine such an inflator with the cushion with a hole for the squib.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following are inflatable cushions with mounting studs or inflator holes: Risko (US 4,153,273), Zelenak, Jr. et al. (US 5,022,675), Inoue et al. (US 5,857,696), Keshavaraj (US 6,299,204 and 6,299,206), and Dumbrique et al. (US 6,802,526).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tiffany L. Webb whose telephone number is 571-272-2797. The examiner can normally be reached on 8-4:30 M-F.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tiffany L Webb
Examiner
Art Unit 3616

tlw



PAUL N. DICKSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600